CLAIMS:

1.   (Currently Amended) A method for automatic configuration of a
bi-directional Internet Protocol (IP) communication device to establish an Internet
connection, comprising:

      automatically broadcasting a request from a bi-directional Internet
Protocol (IP) communication device selected from either a DSL gateway or cable modem
for ~~unique~~ basic configuration details for the IP communication device over an IP
network to the Internet and a remote server connected thereto, where said request
contains a MAC address and a unique bi-directional IP communication device identifier
stored in the IP communication device and associated with a unique user at the server
prior to configuration;

      receiving said ~~unique~~ basic configuration details including an IP address
from the server at said device, where said ~~unique~~ basic configuration details are assigned to
said unique user based on said unique bi-directional IP communication device identifier; and

      ~~said bi-directional IP communication device~~ automatically configuring ~~itself~~ said bi-
directional IP communication device with said ~~unique~~ basic configuration details to establish an
Internet connection.

2.   (Previously Presented) The method of claim 1, wherein said remote server is a
Dynamic Host Configuration Protocol (DHCP) server.

3.   (Previously Presented) The method of claim 2, wherein said receiving comprises
obtaining said IP address from said DHCP server.

4.   (Original) The method of claim 1, further comprising transmitting a configuration
request for additional configuration details.

5.   (Original) The method of claim 4, further comprising receiving said additional
configuration details specific to said unique user.

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6.   (Original) The method of claim 5, further comprising configuring said bi-
directional IP communication device with said additional configuration details.

7.   (Previously Presented) The method of claim 1, further comprising, before said
broadcasting step, the steps of:
        connecting said bi-directional IP communication device to
a communication line; and
        powering said bi-directional IP communication device on.

8.   (Previously Presented) The method of claim 7, further comprising, before said
broadcasting step, the step of automatically detecting a communication circuit over
said communication line.

9.   (Original) The method of claim 1, further comprising, before said broadcasting
step, the step of automatically determining Permanent Virtual Circuit (PVC)
details for communications between said bi-directional IP communication
device and a communications network.

10.   (Original) The method of claim 9, wherein said determining comprises the step of
ascertaining a VPINCI (Virtual Path Identifier/Virtual Channel Identifier) pair
for said communications.

11.   (Previously Presented) The method of claim 2, wherein the address of the DHCP
server is unknown to the IP communication device said broadcasting comprises
broadcasting a DHCP Discover request using a TCP/IP broadcast.

12.   (Previously Presented) The method of claim 11, wherein said DHCP server
validates the request, said receiving comprises acquiring a DHCP Offer message from the
DHCP·server broadcast as a TCIP/IP broadcast and accepting the IP address.

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13.   (Previously Presented) The method of claim 12, further comprising, prior to said configuring step, the steps of:

        sending a DHCP Request message to at least the DHCP server; and

        receiving a DHCP acknowledge message from said DHCP server.

14.   (Original) The method of claim 1, wherein said broadcasting and receiving steps occur automatically without any communication between said bi-directional IP communication device and a client computer coupled to said bi-directional IP communication device.

15.   (Currently Amended) The method of claim 1, further comprising, prior to said configuring step, the steps of:

        assigning said unique bi-directional IP communication device
identifier to said bi-directional IP communication device and storing the identifier
therein; and

        associating said unique bi-directional IP communication device
identifier with said unique user; and

        storing the unique device identifier, the associated unique user and the basic
configuration details in the server.

16.   (Previously Presented) The method of claim 15, further comprising generating a configuration table listing bi-directional-IP communication device identifiers, associated users and each user's basic configuration details.

17.   (Currently Amended) A bi-directional IP communication device, comprising:

        a Central Processing Unit (CPU);

        communication circuitry;

        input/output ports; and

        a memory containing:

                a unique bi-directional IP communication device
identifier for a DSL gateway or cable modem;

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instructions for automatically broadcasting a request from the device for

unique-basic configuration details for the IP communication device, where said request

contains a MAC address and a unique bi-directional IP communication device identifier

associated with a unique user at a server prior to configuration;

   instructions for receiving said unique basic configuration details including an IP

address from the server, where said unique basic configuration details is assigned to   said unique

user based on said unique bi-directional IP communication device identifier;   and

   instructions for automatically configuring said bi-directional IP

communication device with said unique-basic configuration details to establish an Internet

connection.

18. (Previously Presented) The bi-directional IP communication device of claim 17,

wherein the address of the server is unknown to the IP communication device, said

instructions for broadcasting further comprise instructions for broadcasting said request

for basic configuration details using a TCP/IP broadcast.

19. (Currently Amended) A computer program product for use in conjunction with a

a bi-directional Internet Protocol (IP) communication device for the automatic configuration

thereof, the computer program product comprising a computer readable storage and a computer

program stored therein, the computer program comprising:

   instructions for automatically broadcasting a request from a bi- directional Internet

Protocol (IP) communication device selected from either a DSL gateway or cable   modem for

unique basic configuration details for the IP communication device, where   said request contains

a MAC address and a unique bi-directional IP communication device identifier stored in the IP

communication device and associated with a unique user   at a server prior to configuration;

   instructions for receiving said unique-basic configuration details including an IP

address from a server at said device, where said unique basic configuration details is

assigned to said unique user based on said unique bi-directional IP communication device

identifier; and

   instructions for automatically configuring said bi-directional IP communication

device with said unique basic configuration details to establish an Internet connection.

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20.   (Previously Presented) The computer program product of claim 19, wherein the address of the server is unknown to the IP communication device, said instructions for broadcasting further comprise instructions for broadcasting said request for basic configuration details using a TCP/IP broadcast.

21.   (Previously Presented) The method of claim 1, wherein a configuration table listing device identifiers, their associated users, and each user's basic configuration details is stored in the server.

22.   (Currently Amended) A method for the automatic configuration of a bi-directional Internet Protocol (IP) communication device, comprising:

   associating users of bi-directional Internet Protocol (IP) communication devices selected from either a DSL gateway or cable modem with respective unique device identifiers;

   storing a configuration table listing the unique device identifiers, their associated users and each user's basic configuration details in a server;

   connecting ~~an~~ a user's unconfigured bi-directional IP ~~Internet Protocol (IP)~~ communication device ~~selected from either a DSL gateway or cable modem~~ to a communication line, said device having ~~a~~ the unique device identifier stored therein that is associated at ~~a~~ the server with the ~~a unique~~ user prior to connection~~, said server storing a configuration table listing device identifiers, their associated users and each user's unique basic configuration details~~;

   automatically broadcasting a request using a TCP/IP broadcast from the IP communication device for basic configuration details for the IP communication device over the communication line to the server, where said request contains a MAC address and the unique device identifier;

   receiving at said device a TCP/IP broadcast message from the server with said ~~unique~~ basic configuration details including an IP address, where said ~~unique~~ basic configuration details for the IP communication device are assigned to said unique user based on said unique device identifier; and

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automatically configuring said IP communication device with said ~~unique~~
basic configuration details to establish an Internet connection.

23.   Cancelled

24.   Cancelled

25.   (Previously Presented) The method of claim 22, further comprising, before said
broadcasting step, the step of automatically detecting a dial-tone for the internet protocol.

26.   (Currently Amended) A method for the automatic configuration of a
bi-directional Internet Protocol (IP) communication device, comprising:

        providing a bi-directional Internet Protocol (IP) communication device selected
from either a DSL gateway or cable modem having a MAC address and a unique device
identifier stored therein;

        associating the device identifier with a user identifier for a unique user of the IP
communication device;

        providing the IP communication device to the unique user;

        providing the device identifier and the user identifier to an internet service
provider (ISP);

        generating a configuration table listing device identifiers, their associated users, and
each user's ~~unique~~-basic configuration details including an IP address;

        storing the configuration table in a server;

        connecting the IP communication device to a network at a user site;

        automatically broadcasting a request from the IP communications device for
~~unique~~ basic configuration details for the IP communication device to the server over the
network, where said request contains the MAC address and the unique device identifier;

        identifying the user's ~~unique~~-basic configuration details in the configuration table
from the device identifier;

        transmitting the ~~unique~~ basic configuration details to the user site IP
communications device;

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     receiving said ~~unique~~ basic configuration details at said IP communication from the server; and

     ~~said IP communication device~~ automatically configuring ~~itself~~ <u>said IP communication device</u> with said ~~unique~~ basic configuration details.

27.   (Previously Presented) The method of claim 26, further comprising, before said broadcasting step, the step of automatically detecting a dial-tone for the internet protocol.

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